

3 INCREASING THE NUMBER OF DEGREES IN HIGH-DEMAND FIELDS

Overview

The evolution of Washington's economy from one based on manufacturing to one that rewards knowledge, skills, and education has been well documented. However, the state has provided only limited funding to help Washington residents benefit from that change. Inflation-adjusted per-student funding for the state's colleges and universities has steadily eroded since the early 1990s and recent "high-demand enrollment" funding has not been available long enough to have made more than a marginal impact.

In this environment, it is critical that the state align its limited resources for public higher education with the needs of the economy. Traditional liberal arts education must remain a core component of the state's higher education system because the skills it imparts are central to business and career success. However, the state also must respond to student and employer demands in fields where current or projected job creation outpaces the capacity of the higher education system to produce trained graduates. This means targeting new funds and program development efforts to health care, biotechnology, and other fields that address statewide and regional opportunities and priorities.

In the 2004 Strategic Master Plan for Higher Education, the Higher Education Coordinating Board has set goals to increase the number of degrees earned and the number of students who are prepared for work. It is reasonable to expect that a portion of this increase would be devoted to high-demand fields.

The board proposes to increase the number of students who earn degrees and are prepared for work in high-demand fields by 300 per year to reach a cumulative total of 1,500 by 2010. Such a target would require adding about 1,000 full-time equivalent (FTE) students to the higher education system each year. These degrees and enrollments are in addition to existing degrees and enrollments in the higher education system.

Analysis

What is "high-demand"?

High-demand programs have two primary elements: (1) instructional programs or fields in which student enrollment applications exceed available slots and (2) career fields in which employers are unable to find enough skilled graduates to fill available jobs.¹

1 For a discussion of high-demand definitions, see "High-Demand Enrollment Reports, 2001-03, Overview and Executive Summary," Higher Education Coordinating Board, December 2002, and "High Demand – High Need – High Cost Enrollment Allocations, 2001-03," Council of Presidents' Interinstitutional Committee of Academic Officers, November 15, 2002.

This definition recognizes both excess student demand for a program and strong economic requirements for graduates in given fields. Satisfying both elements is critical. Fulfilling student demand without subsequent placement with employers will quickly flood the job market with unemployed graduates. Expanding programs because of employer demand without a queue of students will lead to unused capacity. Plus, a shortage of workers is not necessarily the result of limited instructional capacity but could be symptomatic of the working conditions and/or wages in the occupation – problems that need to be addressed by other means.

Policy and practice in Washington

In Washington, the governor and legislature have provided funds intermittently since 1999 to support the creation of new enrollment slots in high-demand programs, in response to competitive proposals from the public two-year and four-year colleges and universities. Appropriations were made in the 1999-01 and 2003-05 biennia, while in 2001-03 lawmakers asked the public colleges to submit reports about how they were or were not able to respond to high-demand program needs.

In the 2003-05 operating budget, the legislature identified certain fields it believes to be “high-demand.” For the public four-year colleges and universities, these fields include: (1) careers in nursing and other health services; (2) applied science and engineering; (3) teaching and speech pathology; (4) computing and information technology; and (5) viticulture and enology. Other fields also may be considered high-demand if a college or university can provide compelling information about specific regional student and employer demand. For the public two-year college system, “high-demand fields” include: (1) health services; (2) applied science and engineering; (3) viticulture and enology; (4) information technology; and (5) expansion of worker retraining programs.

The Higher Education Coordinating Board is responsible for administering a competitive grant process to allocate high-demand funds among the four-year colleges and universities. The State Board for Community and Technical Colleges has that responsibility for the two-year colleges.

The need for earmarked funding

High-demand programs are often quite expensive – the cost per student of providing the program can be greater than average. Reallocation of funds within a college or university’s current budget is an important, but limited, source of high-demand funds. Colleges and universities regularly shift funding among their various programs. But, because high-demand programs are often quite expensive, it is an over-simplification to assume that colleges and universities can shift enrollment allocations on a one-for-one basis from low-cost, low-demand programs to much more expensive high-demand programs.

Pending issues

To help meet the state's economic needs and respond to employer and student demand, the board will develop an ongoing method of identifying high-demand fields and programs based on student and employer needs and master plan goals. The board believes the state would provide greater service to students and employers and greater predictability to the colleges and universities if it facilitated an ongoing dialogue about the changing environment for high-demand programs and fields, rather than responding in a sporadic fashion based on the availability of funding.

House Bill 3103, enacted in 2004, directs the board to develop a comprehensive and ongoing assessment process to analyze the need for additional degrees and programs. The needs assessment will examine projections of student, employer, and community demand for education and degrees – including liberal arts degrees – on a regional and statewide basis. The process will help identify, on a regional and statewide basis, program areas with high student demand for certain programs, as well as significant employer demand for graduates. It also will be used to estimate the total high-demand program need.

Identifying high-demand disciplines will require cooperation and information from a number of entities, including public and private four-year colleges and universities; the community and technical college system; private career schools; the Workforce Training and Education Coordinating Board; the Department of Employment Security; local economic development agencies; various committees and commissions that are reviewing particular industries or occupations; and industry and trade associations.

This will not be a groundbreaking effort, because all of these groups are represented in current state efforts to develop economic, job, and educational forecasts. But this process will require a greater level of coordination and collaboration than has existed in the past. Ideally, the board would include a list of high-demand programs within its budget recommendations for higher education.

Another issue is how to allocate high-demand funding among the colleges and universities. The Higher Education Coordinating Board and the State Board for Community and Technical Colleges have successfully administered competitive grant programs since 1999. The HECB recommends the current competitive process be continued and refined as suggested above.

The final question is whether private colleges and universities should be allowed to compete for state high-demand funds on an equal footing with the public colleges and universities. During the last session, the governor decided not to include independent colleges and universities as eligible institutions for high-demand enrollment funding. However, the governor also expressed a desire for better inclusion of private institutions in statewide efforts to fulfill the educational needs of college and university students.

Implementation Plan

The HECB has identified several specific actions that are required to implement its policy proposal.

1. Identify high-demand fields

Short-term – 2005-07 biennium

Since competitive high-demand enrollment funding began in 1999, eligible programs have been identified in two ways. The legislature and governor have identified in the state operating budget a number of academic fields in which (1) student enrollment applications exceed available positions and (2) employers are unable to find enough skilled graduates to fill available or forecast job openings.

Colleges have been permitted to propose certain additional fields for high-demand designation (and for enriched funding). The HECB has required the four-year colleges and universities to provide supporting information to justify this designation for their proposed programs. This approach should continue in the 2005-07 biennium.

Long-term – 2007-09 biennium and beyond

By June 2006, a work group convened by the HECB will develop a list of high-demand fields for the 2007-09 biennium. In future years, the list of eligible programs will be included with the biennial HECB budget recommendations for higher education.

In future years, the HECB would continue to permit colleges and universities to document in their funding proposals additional academic fields that offer unique regional student and employer demand. The competitive bid process for selecting specific programs for funding would continue.

2. Fund high-demand enrollment slots

The HECB and SBCTC have submitted budget requests for 2005-07 to continue high-demand enrollment funding. In addition, it is expected that funding for existing high-demand grant programs will be continued in institutional base budgets.

Performance measures

- Change in the number of degrees and certificates earned and/or program completions in high-demand fields.²
- Change in enrollments in high-demand fields.
- State appropriations for high-demand programs.

Estimated costs³

2005-07: \$30 million in new appropriations and \$0 in carry-forward costs (treating this proposal as a new program and not a continuation of the existing program).

2007-09: \$30 million in new appropriations and \$40 million in carry-forward costs.

2009-11: \$30 million in new appropriations and \$80 million in carry-forward costs.

Examples of ongoing related work

- Since 1999, the HECB has received three separate appropriations to conduct competitive grant programs to expand and create new academic programs in high-demand fields. Funds and enrollment slots have been targeted to programs in computer sciences and technology fields, health care, teacher training, and in fields that offer unique regional economic development opportunities.
- The initial appropriation to the HECB, in the 1999-01 biennium, was for grants to public two-year and four-year colleges and universities. However, subsequent appropriations to the HECB have been for only four-year colleges and universities. The State Board for Community and Technical Colleges has administered grants to the public two-year colleges. In Fiscal Year 2004, \$9 million was granted for 1,366 FTE students; in Fiscal Year 2005, \$19 million was granted for 2,436 FTE students.
- The HECB has begun to implement a provision of House Bill 3103 (Sec. 9) that calls for a comprehensive and ongoing assessment process to analyze the need for additional degrees and programs. This project will provide significant information about which academic fields are expected to be in demand from students and employers in the future.

² There will be a time lag between the initial funding, the addition of students, and the change in the number of degrees/certificates.

³ Funds to continue the high-demand projects initiated during 2003-05 would be included in institutions' base budgets in future biennia.

Appropriations during the 2005-07 biennium would be made to the Higher Education Coordinating Board and the State Board for Community and Technical Colleges. These would consist of \$10 million in the first year of the biennium and \$20 million in the second year (to continue the initial first-year projects and begin a new second-year set of projects). In future biennia, these projects' ongoing costs would be carried forward in the institutional base budgets and new rounds of projects would be started.

High-Demand Funding Proposal and Outcomes

Dollars in Millions

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
<i>Grants to HECB, SBCTC and/or institutions</i>	\$10	\$20	\$10	\$20	\$10	\$20
<i>“Carryforward” appropriations to institutions and/or SBCTC</i>			\$20	\$20	\$40	\$40
<i>Total GF-S</i>	\$10	\$20	\$30	\$40	\$50	\$60
<i>BIENNIAL TOTAL</i>		\$30		\$70		\$110
<i>Average state cost per FTE</i>	\$10,000					
<i>FTEs in high-demand programs</i>	1,000	2,000	3,000	4,000	5,000	6,000
<i>COMPLETERS</i>		600	900	1,200	1,500	1,800